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LEVEL II

Planning and Accountability Systems For EEO and Affirmative Action Policy

RESEARCH REPORT NO. 38

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By

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This paper reviews the managerial, statistical and information management implications of using two standards, relevant labor force (RLF) and civilian labor force (CLF), in EEO and affirmative action planning and accountability. A review is provided of the use of CLF and RLF in Supreme Court decisions related to the Civil Rights Act of 1964. The paper concludes with a description of the Department of Navy EEO Accountability System (DONEAS) which uses both the CLF and RLF standards for internal Navy review.		

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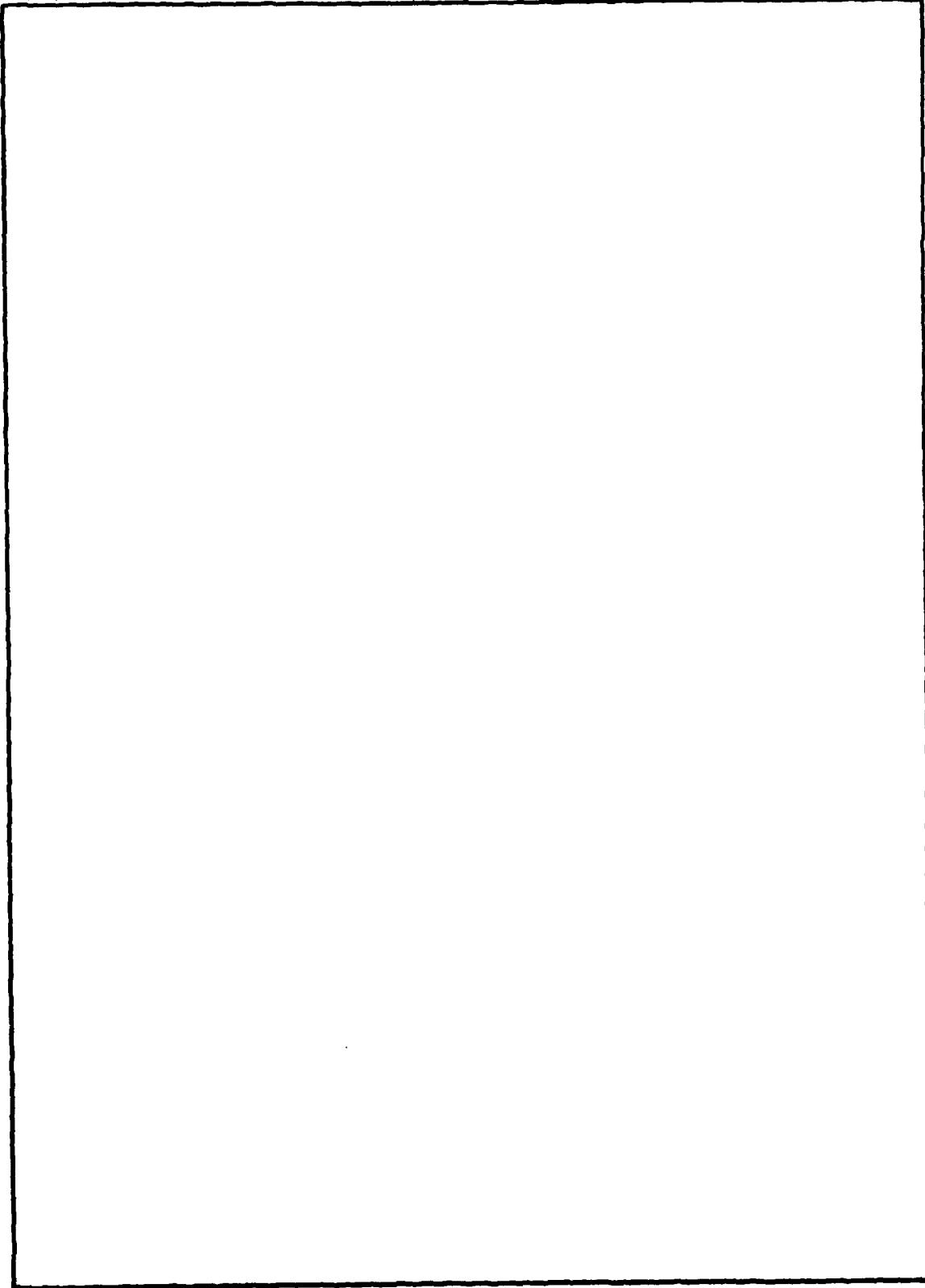
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RESEARCH REPORT NO. 38

PLANNING AND ACCOUNTABILITY SYSTEMS
FOR EEO AND AFFIRMATIVE ACTION POLICY

by

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Introduction

Planning and accountability for Equal Employment Opportunity (EEO) and Affirmative Action (AA) policy in large organizations are continuing to receive attention as important issues in American society. Philosophically, sixteen years after the passage of the Civil Rights Act of 1964, there are still strong constituencies for two sides of the fundamental issue of "How much is enough?"¹ On one side of the question is the contention that parity for EEO/AA purposes should use representation proportions based only on numbers of qualified or qualifiable persons of each race or national origin, and sex origin (RNS) in the geographic labor market. With this point of view, available or Relevant Labor Force (RLF) parity is used to measure compliance. This orientation is closely related to the statistical approaches used in deciding EEO discrimination litigation to date. On the other side of the question is the contention that parity for EEO/AA purposes should use representation proportions based on the RNS composition of the entire Civilian Labor Force (CLF), without regard to existing or projected qualification availability. This orientation has been used as the appropriate criterion for determination when AA program objectives have been accomplished.

Usage of equal employment opportunity and affirmative action implies differences between the two concepts with the latter as a remedy for previous lack of the former. However, the relationships between EEO and AA and improving the common good are not completely clear; Congress and

¹For a short but concise review of these points of view particularly as they pertain to the formation of Title VII it is useful to read both the majority and minority opinions of the Weber vs. Kaiser Aluminum case. See the United States Law Week, Vol. 47, No. 50 of June 26, 1979, pp. 4851-4867.

the courts have not resolved all the issues. This paper reviews the managerial, statistical and information management implications of using these two standards, RLF and CLF, in various ways. It is our intention to leave philosophical choices to the reader, while interpreting the likely consequences in light of prior litigation.

Definition of Terms and Issues

An effective set of EEO and AA policies must consider both the RLF and CLF since the law is not clear at this writing. In addition, as is supported by case law to date, each may be appropriate to different parts of the motivation, planning, evaluation and control processes. Until the issues and data are understood better, EEO and AA will continue to be subjects fraught with confusion and turmoil. Because this area is constantly shifting, it is helpful to define the terminology we will use throughout the paper and the issues we will address. Since passage of the Civil Rights Act of 1964 a steady stream of court actions and regulation have shaped the area. This paper focuses on issues covered by Title VII of the Act, the section governing employment practices. The court cases we will be concerned with are limited to U. S. Supreme Court cases dealing with statistical issues. Also considered are regulations of the Equal Employment Opportunity Commission (EEOC) and the U.S. Office of Personnel Management (OPM).

Equal Employment Opportunity (EEO) means equal access to all rights and responsibilities of employment without regard to race, religion, national origin or sex. This includes equality of access not only to initial hiring but also to all phases of the employment process -- recruitment, promotion, training, etc. EEO in no way prohibits discrimination on the basis of job related characteristics or

qualification of an applicant or employee; it only prohibits discrimination on the basis of race, nationality or sex. The burden of proving the job-relatedness of any procedure rests with the employer. "EEO" is often used to refer to all actions taken pursuant to Title VII, including affirmative actions. As the implications of different programs which have fallen under the heading of affirmative action become clearer, the terminology is evolving to more precisely reflect distinction between EEO and Affirmative Action.

Affirmative Action (AA) has generally referred to actions designed to make opportunities available to groups previously denied them (i.e. to assure equality of opportunity) and/or to correct the representation imbalances resulting from past inequities. Such use of AA can cover a very wide range of actions, some might be considered necessary to EEO and others which might be described as "RNS-conscious" remedies because of prima facie statistical evidence of past discrimination.

Common examples of AA to provide EEO are establishing "outreach" programs to inform minorities of available employment and/or training opportunities; restructuring jobs or career paths to increase mobility of minority employees into and within the organization; and recruiting at predominately minority schools. These actions are not RNS-conscious since they aim at recruiting rather than selection decisions. Non-minorities in the source communities or jobs should be affected in the same way (proportionately) as minorities. This covers the majority of affirmative action programs currently in existence. Also included is the Federal Equal Employment Opportunity Program (FEORP) which was mandated by the Civil Service Reform Act of 1978.²

²See FPM 720-2(13) which provides the guidance on FEORP.

"Affirmative Action" will be used in this paper to refer to actions that are not RNS-conscious. It will be explicitly stated that programs are "RNS-conscious AA" when that is what is meant. RNS-conscious AA is generally used in reference to selection decisions.

In summary, EEO occurs when the access to some aspect of employment is proportional to each RNS group's representation in all relevant available qualified or qualifiable populations. Affirmative action generally refers to any recruitment remedies to make accessible to minorities and women opportunities which were previously not available to them. RNS conscious AA occurs when one RNS group is explicitly given preference over another RNS group in a selection decision.

Two measures prevalent in law and litigation to date reflect representation in differently defined populations. These measures are Civilian Labor Force (CLF) and Relevant Labor Force (RLF). CLF is the overall average proportion of each RNS group in the total civilian labor force, as defined by the U.S. Department of Labor without regard to specific occupations or qualifications.³ An RNS group's average representation in the total CLF indicates the expected values of representation proportions in every occupation if all RNS groups historically had equal opportunities to education, housing, voting, jobs, etc., and had taken advantage of such opportunities. RLF is the proportion each RNS group comprises of those persons who are qualified or qualifiable for a particular occupation, including different wage levels within the occupation. Thus RLF statistics are very dependent on how occupations and qualifications pertinent to them are measured and defined. Both CLF and RLF statistics can be defined for any specified geographic area.

³See (13) which provides the CLF data to be used in the FEORP

The significance of RLF and CLF relationships is brought out in later discussions of the various possible relationships between CLF, RLF and actual on-board populations. We use two concepts of parity or RNS-balance:⁴ (1) organizational, which refers to the relationship of the organization's actual representation to RLF and (2) Societal, which refers to the relationship of actual representation to CLF.

As later sections of this paper will demonstrate, CLF and RLF provide very different perspectives when used as the benchmarks for analyzing of organizational statistics and setting objectives. Not surprisingly, CLF and RLF have been used for different purposes in Civil Rights litigation, as discussed in the next section. They also have different uses for evaluating and planning selection decisions than, when they are used to evaluate the amount of EEO compliance in the existing work force and to determine composition areas appropriate for AA. Clearly, then, simultaneous consideration of both CLF and RLF standards is desirable for comprehensive AA planning.

CLF and RLF In Supreme Court Decisions

It is worthwhile to review some of the opinions about statistics and data which have been raised in Supreme Court Decisions as the result of cases arising out of the Civil Rights Act of 1964 and its Amendments in 1972. Each opinion taken by itself may resolve a given part of an issue. However, when all of the statistical rules which have appeared in litigation are reviewed collectively, and are coupled to specific issues to which they relate, a better understanding of systemic approaches towards EEO and AA is obtained. Also, as the Supreme Court Cases are

⁴For an additional discussion of parity concepts see Chapter IV of Niehaus (16) pp 98-103.

viewed in conjunction with one another, contradictions and gaps requiring further attention become more clear. Further, all the various statistical rules can be related in a systemic fashion to the Affirmative Action Guidelines of the EEOC.⁵

This section addresses only the issue of using RLF and/or CLF statistics as criteria for determining prima facie discrimination or developing strategies for RNS conscious affirmative action. No attempt is made to address what other elements might then be required to develop a permissible AA plan, or what kinds of non-statistical evidence can be used to support or refute discrimination charges.

A summary of the main civil rights Supreme Court decisions involving RLF, CLF, and employment related statistical issues is given on Figure 1.⁶ The first major case was Griggs v. Duke Power Company where the Court held that tests used for employee selection must be job related. The majority opinion held that job qualifications are the controlling factor in determining employment discrimination. Griggs was the prelude to later decisions which discussed the RLF/CLF issue directly.

A direct result of Griggs was the Uniform Guidelines for Employee Selection Procedures (UGESP) published in the Federal Register in 1978.⁷

Of interest from a statistical standpoint is the so-called "four-fifths" rule. It states that if a RNS group experiences a selection or promotion rate of less than four-fifths (80 percent) of any other group, then this will generally be regarded as preliminary evidence of adverse impact or discrimination. Both Greenburg (14) and Boardman (7) investigated mathematically the probability of making Type I and Type II

⁵These AA guidelines are provided in (2).

⁶See Chapter IV of (16) as well as McFeeley (15) who has made a review of the various Supreme Court cases and how they relate to the Weber decision concerning affirmative action. Also see (12).

⁷See (1).

Title VII Supreme Court Decisions Involving Statistical Issues

- GRIGGS** testing job qualifications controlling factor
- TEAMSTERS** seniority systems use of statistics
- HAZELWOOD** relevant labor force geographic area statistical significance testing
- FURNCO** relevant labor force
- BAKKE (Title VII)** quota systems
- WEBER** voluntary affirmative action civilian labor force rights of majority

Figure 1

errors⁸ when applying the four-fifths rule. For example, Boardman shows that:

"....if there are two groups and fewer than 25 people are promoted, the probability that either group might claim adverse impact when, in fact, none exist is higher than 50 percent. When there are more than two groups, the probabilities are higher. Thus, the four-fifths rule appears to invite considerable inappropriate litigation."

In Teamsters v. United States the Court affirmed the idea that statistics could be used to prove or disprove discrimination. It addressed the issue of seniority systems with an opinion stating that "an otherwise neutral, legitimate seniority system does not become unlawful under Title VII simply because it may perpetuate pre-act discrimination".

The Hazelwood School District v. United States case spoke directly to the issues of statistical significance testing, relevant labor force, and labor market geographic area. Essentially, the conclusion was that the use of all the normal rules of statistics as they apply to social systems are valid to determine if discrimination is present.⁹ The Court held that RLF is the proper standard when comparing the racial composition of the school district's teaching staff and the racial composition of the qualified public school teacher population. This includes the use of the geographic area which is consistent with the RLF standard.

⁸Reviewing, Type I error is when a true hypothesis of rejected and Type II error is when a false hypothesis is accepted. The significance level of a test commonly refers to the probability of occurrence of a Type I error.

⁹The statistical text which is most often cited in Title VII court cases is Blalock (6).

In Furnco Construction Corporation v. Waters the Court held that "statistical proof that the work force was racially balanced or contained disproportionately higher percentages of minority employees could be considered in trying to determine motivation". The District Court in this case went on at length "...as to the "critical" necessity of ensuring that only experienced and highly qualified fire-bricklayers were employed." It pointed out that "...5.7% of the bricklayers in the relevant labor force were minority group...while...13.3% of the man-days...were worked by black bricklayers."¹⁰ Furnco's General Manager had instructed his job superintendant "to employ, as far as possible, at least 16% black bricklayers, a policy due to Furnco's self-imposed affirmative action plan..." From Furnco, we begin to get the concept of a range, with RLF as a lower bound and a CLF based number from the affirmative action plan as an upper bound. The opinion that the courts must recognize and consider supply limitations imposed by qualifications to do the work is also clear.

The Regents of the University of California v. Alan Bakke case, although a Title VI case, has obvious implications for preferential personnel practices. The decision seems to indicate that affirmative action programs are permissible especially if past racial discrimination, was proved, and particularly by the organization in question. In Bakke, CLF statistics were used as the standard. However, the idea of a straight quota was opposed by the justices who found that Bakke's rights had been denied. Thus, with Bakke the Court opened up the issues of (1) the propriety of using preferential treatment as a mechanism to overcome societal discrimination and (2) the relationship of AA methods to a particular organizations' history in providing for Civil rights.

¹⁰ It was also shown in a study in the case that approximately 500 or 13.7% of the members of the local bricklayers union were black.

While the Kaiser Aluminum v. Weber case was a narrow inquiry, it centered on the issue of affirmative action. Here the decision stressed the fact that Kaiser's affirmative action program was voluntary and that the court was speaking only about the apprentice program. However, it did endorse the concept of using CLF statistics for measuring the end-point to an affirmative action plan. Other facts of the case were that the rights of the majority must be protected in any affirmative action system and again present was the issue of past societal discrimination and the responsibilities of employers to overcome its effects.

All the Title VII Supreme Court cases before Weber involved minority claims of discrimination by the employer. These earlier decisions reflect how much and what kinds of discrimination for which an individual employer is liable. The conclusion appears to be that any employer is liable only for its own discrimination (i.e. in not providing equal opportunity to qualified applicants) but not for the discrimination of society in failing to qualify minorities and women equally. Thus, RLF statistics, representing qualified labor supplies, have been consistently used in settling these cases. Weber addresses the very different issue of how far an individual employer can go in taking voluntary action to overcome the past discrimination which led to a very small supply of qualified minorities relative to their representation in the external work force. The decision was that Kaiser's race-conscious affirmative action program, with all its conditions and protections in effect, is permissible.

The Weber decision implies that the first issue to be decided is whether there has been past discrimination, not specifically by the employer in question but by society at large. The evidence required to support such a contention of past discrimination appears to be that the

proportion of qualified minorities (RLF) is less than the proportion of minorities in the workforce (CLF). Once Kaiser's minority representation in the affected set of jobs reaches CLF, the affirmative action program must stop. Inclusion of such a measure of when AA has accomplished its proper task seems to be a requisite factor. Note also that the AA program was only for entry level (apprentice) jobs for which minimal qualifications were required. However, the stopping-rule of CLF parity applied to the larger set of jobs for which the apprentice program provided training. This appears to imply that CLF need not be reached at each and every career level within the occupation, but in the aggregate occupational representation. Thus we see use of entry level RNS-conscious AA as a means of correcting imbalances at higher skill levels.

It is clear that the courts still have much more to say about numerical and statistical issues related to EEO and AA. One interim alternative in designing an EEO/AA policy analysis system is to try to make explicit all of the essential features of Supreme court decisions and guidance from EEOC and OPM. Where there are fundamental differences between CLF and RLF, both sets of data should be developed. This recommendation is reviewed in the next section which discusses the relationship of CLF, RLF and actual (ACT) distributions as far as the RNS composition of an organization's work force is concerned.

CLF, RLF and ACT Distribution Relationships

This section explores the relationships between CLF, RLF and Actual (ACT) (the organization's own statistics) workforce distribution proportions. Based on the law and litigation reviewed above, the EEO/AA

policies which appear to be appropriate to each type of relationship are explored. Figure 2 provides the possible relationship between RLF, CLF and ACT, grouped into six situations based on relevant parity and/or policy issues. In this section the CLF, RLF, and ACT relationships are examined as they would apply to one-RNS-group-at-a-time. Systemic approaches (e.g. CLF, RLF and ACT relationships of the various RNS groups to each other, etc) are explored in the next section.

In Situations 1 and 2, ACT is greater than or equal to both CLF and RLF. When Situation 1 holds, the RNS-group is not underrepresented from either an organizational (since ACT is equal to or greater than CLF) perspective. No affirmative actions would be appropriate in Situation 1. In Situation 2, there is no organizational underrepresentation but there is societal underrepresentation (RLF less than CLF). The use of CLF parity as the stopping rule in Weber is one indication that it is also inappropriate for an organization to initiate or continue affirmative action in Situation 2.

Situations 3, 4 and 5 demonstrate prima facie discrimination since ACT is less than RLF (assuming the difference is large enough). In these cases there is a potential threat of a discrimination suit (see Griggs, Hazelwood, Furnco, etc.) In these situations there is some supply of qualified or qualifiable RNS-group members in the available labor force which the organization is not tapping. Affirmative actions (which appear to be able to be RNS-conscious if the discrimination is severe) to ensure EEO are clearly appropriate in Situations 3 and 5 to move ACT to RLF parity. However, it is not clear that affirmative action is appropriate in Situation 4 since there is no societal discrimination as measured by CLF.

PRECEDENCE RELATIONSHIPS BETWEEN CLF, RLF, AND ACTUAL

A	1	$CLF \leq RLF \leq ACT$
	2	$RLF < CLF \leq ACT$
	3	$ACT < CLF < RLF$
B	4	$CLF \leq ACT < RLF$
	5	$ACT < RLF < CLF$
C	6	$RLF \leq ACT < CLF$

Figure 2

In Situation 5, where there is also societal discrimination (RLF is less than CLF) additional voluntary affirmative action also may be permissible. Situation 5 is related to Situation 6 since once ACT reaches RLF, the situation converts to Situation 6. In Situation 6 (which was the situation in Weber) evidence of prima facie discrimination by the organization is not present. Consequently, there is little danger of an EEO discrimination suit. However, voluntary affirmative action may be permissible because there is societal discrimination (RLF is less CLF) and ACT is less than CLF., In such situations, where the disparities between RLF and CLF are great (as in Kasier's situation in Alabama), such voluntary affirmative action is more than likely in the best interest of the organization as well as for society in general.

Systemic Issues

When one examines the above analyses from a systemic point of view, the situation becomes more complex. Among the systemic considerations are:

(1) relationship of one RNS group to another (i.e. how does the change in the distribution within the organization of one RNS group affect the distribution of all the others);

(2) relationship of internal movements and losses among all the job categories (i.e. how does, for instance, the promotion of persons of one RNS group from a lower level job category to a higher level job category affect all other RNS groups and job categories);

(3) relationship of improvement in the external labor market availability (RLF supply ratio) of one RNS group affect the other RNS groups (i.e. how does, for instance, the increase in general level of educational achievement of one RNS group which increases its availability affect the other RNS groups);

EXAMPLE FOR PARITY COMPARISONS
OF ACT, RLF, AND CLF AS A SYSTEM

PERCENTAGE DISTRIBUTION			
RNS GROUP	ACT	RLF	CLF
Black Male	4.0	3.0	6.0
Hisp. Male	2.5	2.0	3.5
Asian Male	1.8	1.8	1.0
Nat. Am. Male	0.2	0.2	0.3
White Male	50.5	50.2	50.0
Black Female	5.0	5.0	3.0
Hisp. Female	1.0	1.0	1.5
Asian Female	0.7	0.7	0.5
Nat. Am. Female	0.1	0.1	0.2
White Female	35.2	36.0	34.0

FIRST DIFFERENCE OF PERCENTAGE DISTRIBUTION			
RNS GROUP	RLF-ACT	CLF-ACT	CLF-RLF
Black Male	-1.0	+2.0	+3.0
Hisp. Male	-0.5	+1.0	+1.5
Asian Male	0.0	-0.8	-0.8
Nat. Am. Male	0.0	+0.1	+0.1
White Male	-0.3	-0.5	-0.2
Black Female	0.0	-2.0	-2.0
Hisp. Female	0.0	+0.5	+0.5
Asian Female	0.0	-0.2	-0.2
Nat. Am. Female	0.0	+0.1	+0.1
White Female	+0.8	-1.2	-2.0

Figure 3

(4) relationship of the effects of affirmative action on the RLF and CLF standards themselves.

The first two systemic issues as they relate to CLF, RLF, and ACT relationships are discussed below. The third involving the estimation of RLF supply ratios is addressed elsewhere.¹¹ The final systemic issue is beyond the scope of this paper and will be left to further research.

The systemic issue of the relationship of one RNS category to the others is illustrated in Figure 3. Provided are both percentage distributions of ACT, RLF and CLF, and their first differences (i.e. subtraction of ACT from RLF, ACT from CLF, and RLF from CLF). For the first two RNS groups (Black male and Hispanic male), if viewed individually, it would appear that additional affirmative action is desirable. However, on closer study we see that this would primarily be at the expense of Asian males (if we use CLF as the societal standard) Black females and White females (their RLF parity is greater than their CLF parity). These latter protected groups would be worse off if CLF rather than RLF is used as the standard. White males are only slightly affected in this example since their CLF, RLF and ACT percentage distributions are essentially the same. As affirmative action eliminates RLF-based discrimination, such situations will become common.

The effects of gender (male/female) differences on the RLF and CLF parity comparisons are perhaps the most difficult to resolve (the CLF comparisons in Weber were by race, not by race-gender (race and sex)). While it may be in the interests of society to strive to make all job categories homogenous as far as RNS groups are concerned in the long run

¹¹See Atwater, Niehaus, and Sheridan (5)

(15-20 years), it will be extremely difficult to accomplish such changes for traditionally male-dominated occupations in the short run (5 years). If CLF is used as the standard, affirmative action should become a program aimed primarily at females. This is a variant of the problems discussed using Figure 3.

The systemic issue regarding personnel movement both internal and external to the organization is critical to the measurement of EEO/AA accomplishments.¹² For example, an organization may be according equal opportunities to all RNS groups as far as selections are concerned but look worse off on an accomplishment report which measures the changes in the work force profile. This would be due to losses from the organization. The issue is the relationship of the UGESB (an outgrowth of Griggs) and RNS-conscious affirmative action. Included is the issue of the relationship EEO/AA and seniority and merit systems. The apparent inconsistencies between the protections provided by the UGESB which is aimed at selection decisions and the desires to make organizations homogenous with society as measured by CLF needs further study. At this stage, better information is needed at the policy level so the issue can be dealt with explicitly.

Some RNS groups may not have benefited from the infrastructure of the labor market (i.e. including those who suffered adverse impact or discrimination from society at large) and the resulting issue is to what extent must employers participate in making society whole. In this situation societal discrimination is being measured which will be more apparent in some labor markets than others. In these instances labeling RLF as a device to maintain the "status quo" is too severe as we live in a dynamic society (For example, it has been projected that the

¹²See Chapter III, IV, and IX Niehaus (16) for an indepth discussion of the use of computer-assisted human resources planning techniques as they apply to EEO/AA.

availability of women junior engineers will increase considerably in the next five years). The solution in the Weber case was a bottom-up training program which did not disturb the seniority system beyond the apprentice level. There are good arguments for using CLF to develop minority and women goals for the entry level non-professional jobs. Arguments for the use of CLF in a goals formula are suspect at higher skill levels since the presumption of Title VII is that applicants are qualified or qualifiable. At the higher skill levels, affirmative action programs need to be particularly concerned about equality in selection procedures and training.

A conclusion of this discussion is that both RLF and CLF standards are needed by organizations for more than one reason. RLF standards are needed to ensure that before an organization is faced with EEO litigation, it can determine if it is an equal opportunity employer. CLF standards are needed so the organization can measure its EEO/AE relationships to the larger society. This is particularly true where the organization is the dominant employer in a local labor market. For Federal agencies there is no choice since CLF representation data is required by both EEOC and OPM. As described in Appendix A, the Department of the Navy (DON) has incorporated both standards in to its internal DON EEO Accountability System (DONEAS).

The various measurement and accountability systems discussed in this paper do not answer the question of "How much is enough?" What is provided in this paper is a discussion of the basis for and consequences of using one measurement criteria (e.g. CLF) in relationship to another (RLF). Also, at least one possible systemic solution to help surface the underlying concerns while providing the Navy a way to make better EEO/AE policy decisions is provided by DONEAS.

DEPARTMENT OF NAVY EEO ACCOUNTABILITY SYSTEM (DONEAS)*

In 1975 the Navy began its research into better methods for EEO policy analysis. The research strategy has been to adopt an evolutionary approach by checking each step with applications in the operational organization. By 1977 the internal human resources planning structure was understood better¹ but knowledge of the external relevant labor markets needed improvement. Since then, considerable effort has been expended in projecting into 1983 the external RLF by RNS categories.² The Department of Navy EEO Accountability System (DONEAS) represents the first version of an operational capability that brings into one system the internal and external labor market. Currently DONEAS is an internal Navy system designed to supplement the reporting requirements of EEOC. DONEAS is designed to provide information to develop Navy policy and assess progress towards external and internal EEO management objectives.

An important step accomplished at the same time as the development of DONEAS was the Department of the Navy EEO internal recruitment study.³ This study examined how the Navy used internal recruitment for civilian employees during the 1972 to 1978 period and how it can use internal recruitment in the future as a tool for improving the representation in some areas of its workforce. It is important to remember we were performing the study to assist in setting priorities for the Navy's recruitment-oriented affirmative action or outreach program. Internal

*This Appendix was developed by R. J. Niehaus, Office of the Assistant Secretary of the Navy (Manpower, Reserve Affairs and Logistics).

¹See Charnes, Cooper, Lewis, and Niehaus (8)

²See Atwater, Niehaus, and Sheridan (3), (4), and (5)

³See Nitterhouse (17)

recruitment priorities were determined by first comparing Navy civilian work force data to CLF data to identify those areas where the greatest improvement is needed according to the definition of underrepresentation using the CLF standards set forth in the Federal Equal Opportunity Recruitment Program (FEORP).⁴ Areas where greatest improvement is needed and situations amenable to significant improvement by use of internal recruitment were identified. The appropriate and feasible recommendations of the study for implementation on a Navy-wide basis have since received the attention of the highest levels within the Navy.

The method of developing the RLF statistics is described in detail in Atwater, Niehaus, and Sheridan (5).⁵ The RLF pool for a given geographic area consists of qualified and qualifiable applicants who are (1) workers in comparable jobs, and (2) unemployed or part-time workers in comparable jobs and (3) persons not in the labor force, such as discouraged workers with qualifiable skills and those who have had jobs in the past five years. (It is noteworthy that for some job categories, the inclusion of the non-worker data adds as much as 50% to the representation of minorities and women).

DONEAS uses both RLF and CLF as standards. It combines EEO goals setting, program planning and program evaluation into one system. Three types of reports are developed (1) RNS representation and annual hiring goals data using BOTH RLF and CLF standards (2) quarterly cumulative and

⁴See FPM 720-2 (13)

⁵Also see Chapter IV of Niehaus (16)

end-year accountability reports and (3) multi-year EEO goals. The first type of reports are particularly useful for developing recruiting strategies for the FEORP. The second type bridges FEORP with the Uniform Guidelines for Employee Selection Procedures (UGESP) as part of the EEOC Affirmative Action Program Plan (AAPP).⁶ The third type of reports provides guidance in areas to place management priorities to accomplish both the FEORP and the AAPP.

Data development in DONEAS begins at the local installation (activity) level with rollups to the All Navy level. As shown in Figure 1, the first rollup is the command (major claimant) level followed by aggregations at all the appropriate intermediate levels. The numbers in the boxes indicate the major claimants included in the particular aggregation. Reports are developed for all installations with more than 200 employees. The small installations (fewer than 200 employees) of each major claimant are aggregated into a single residual installation for each major claimant. Labor market statistics which are applied to the residual installation reflect a weighted average of the geographic dispersion of the particular major claimant involved.

The report in Table 1 shows a comparison of CLF underrepresentation and RLF Parity. The first two occupations shown are recruited for in national labor markets and the last two in local labor markets. There were 9 Black male Scientists and Engineers, GS 9-12 (\$17,035 - \$32,110 in

⁶Initial guidance for inclusion of the AAPP methodologies in DONEAS was obtained from EEOC MD-702 (11).

Report Aggregation Scheme

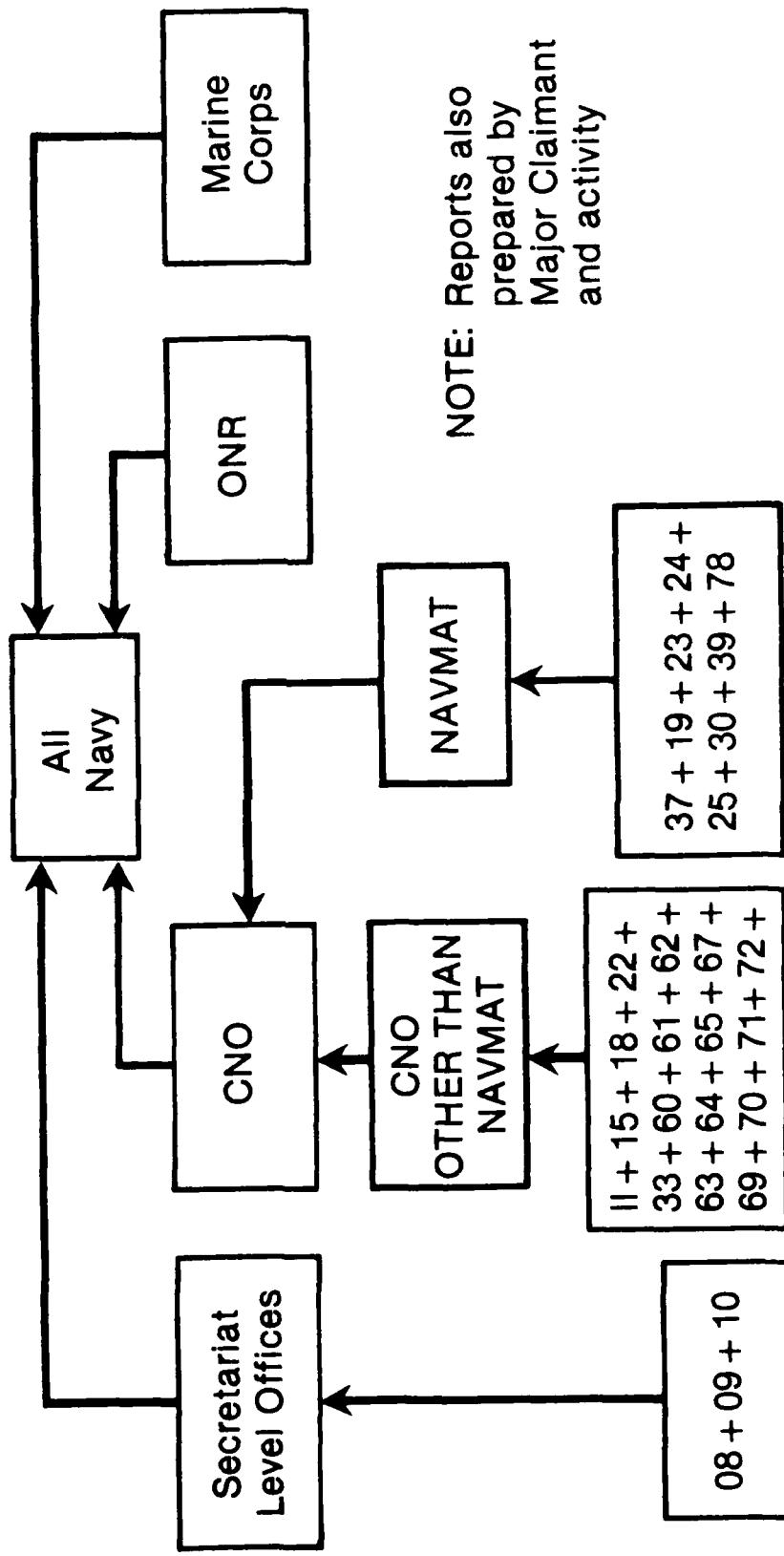


Figure 1

**Comparison of CLF Underrepresentation and RLF Parity
Sample Navy Installation**

Black Male

Job Category	Act SEP 80		Civilian Labor Force % in CLF UI UNREP			Relevant Labor Force % in RLF % Parity % Below		
	No.	%	3.4	0.0	100.0	2.5	0.0	100.0
SCI & ENG GS	5-8	0	0.0	3.4	0.0	2.1	83.8	16.2
	9-12	9	1.8	3.4	51.8	2.8	12.1	87.9
	13-15	1	3	3.4	10.0	90.0		
OTH PROF GS	5-8	0	0.0	3.4	0.0	100.0	3.8	0.0
	9-12	3	2.8	3.4	81.8	18.2	3.8	73.2
	13-15	1	3.5	3.4	101.5	***	2.8	123.2
MGR & ADM GS	5-8	1	2.2	0.8	271.3	***	4.0	54.3
	9-12	9	2.1	0.8	266.3	***	3.0	71.0
	13-15	2	4.9	0.8	610.0	***	3.4	143.5
TECH GS	1-4	0	0.0	0.8	0.0	100.0	5.7	0.0
	5-8	3	1.7	0.8	215.0	***	6.0	28.7
	9-12	10	1.7	0.8	206.3	***	3.0	55.0

***Representation 100% or Greater

Table 1

October 1979), employees on September 1980 which is 1.8% of the sample Navy installations employees in that job category. Using the methodology of the EEOC yields a CLF percentage of 3.4 and an underrepresentation index of 51.8 or underrepresentation of 48.2 percent. Using the Navy developed RLF statistic of 2.1 percent yields 83.8 percent of parity or 16.2 percent below 100 percent representation.

The next step is to use the CLF and RLF standards to develop management targets or goals. There are two types of goals: selection (opportunity) and distribution. Selection goals refer to the number of opportunities (hiring, promotions, or transfers in) which should be accorded to each RNS category during a given period of time. Using selection goals alone, one would never know if the total workforce of an organization is in balance with the external labor force as far as RNS is concerned. Therefore, work force distribution goals are also necessary to measure compliance. Work force distribution goals refer to the use of the RLF or CLF standards to develop desired profiles of the organization by RNS categories.

Consistent with the UGESP and EEOC guidelines, DONEAS includes a hiring goals report as shown in Table 2. Reading a line, we see for Managers and Administrators GS 9-12, there were 39 estimated vacancies or opportunities with a CLF goal of 11 white females and RLF goal of 5 white females. The first lines show a problem that is endemic to this type of report. That is, for most of the protected RNS categories, assuming normal rounding, the goals would be less than 0.5 and thus a goal not indicated. Use of this report at the local level would tend to discriminate against smaller RNS categories such as Hispanic males. Care must be taken to define the job categories in order to allow for sufficient aggregation of vacancy data to ensure that built-in discrimination is not included in the RNS selection goals that are developed.

**Comparison of CLF and RLF Selection Goals
Sample Navy Installation**

White Female

Job Category	EST FY 81		Civilian Labor Force		Relevant Labor Force	
	Vacancies	% in CLF	CLF Goal	% in RLF	Min Goal	
SCI & ENG GS	5-8	2	27.2	1	8.0	000
	9-12	4	27.2	1	5.5	000
MGR & ADM	9-12	39	28.9	11	12.0	5
TECH	GS-14	13	28.9	4	22.0	4
	GS-9-12	19	28.9	6	5.0	1
		0	0	0	0	0
		0	0	0	0	0
		0	0	0	0	0

***Goal less than 0.5, affirmative action encouraged

Table 2

While the development of the selection goal report may not be possible for many local installations, rollup is accomplished by adding partial goals for the local installations involved. For example, Installation A might have a goal in a given job category for Hispanic males of 0.321 and installation B a goal of 0.4453, and for the next higher organizational level a goal of 0.7674 (rounded to 1) would be developed. The method here is to keep the goals in partial numbers and round when the report is printed.

Two types of accountability or achievement reports are developed in DONEAS using the annual selection goals. The first as shown in Table 3 is a quarterly cumulative report, the purpose of which is to allow evaluations throughout the year. It is cumulative so that in the first quarter the report covers one quarter, the second report covers one-half year, etc. The cumulative goals consists of the end-year goal multiplied by 0.25, 0.50, 0.75, or 1.00 depending on the quarter reported. The selections are the actual number for the cumulative period. The cumulative goal achieved is the actual selections divided by the cumulative goal. The end-year goals are expressed both in whole number and percentage terms. The additional change required is the amount in whole numbers and percentage terms needed to achieve the end-year goal. The reports can be developed by using either CLF or RLF as a standard.

The second type of achievement report is the end-year accountability report shown in table 4, which combines work force distribution change data with selection goal achievement data. For example, if we look at the Other Professional GS 5-8 Job Category, there were 41 Black females at the beginning and 43 at the end. There was a net decrease in the work

**Department of the Navy
Cumulative EEO Selection Goals Achievement
SEP 19 ____ to MAR 19 ____**

**Civilian Labor Force Report*
HISPANIC Male**

Job Category	CUM Goal		Selections		% Achieved	CUM Goal	End-Year Goal	Add'l Change Required
	MAR	SEP	MAR	SEP	Achieved	SEP	SEP	
REPRESENTATION 100% OR GREATER @								
Engineer	GS 5-8 9-12	23	33	143	47	1.6%	14	34 %
	13-15	5	5	100	11	1.6	6	55
Procurement	GS 5-8 9-12	4	3	75	9	2.7	6	67
	13-15	5	3	60	10	2.7	7	70
Computer Specialist	GS 5-8 9-12	2	0	0	4	2.7	4	100
	13-15	2	0	0	4	2.7	4	100

@ Goals not required by EEOC

*Relevant Labor Force Report also prepared

Sample Report

Table 3

**Department of the Navy
End-Year Selection Goals Accountability - FY—
Civilian Labor Force Report***

Black Female

Job Category	SEP	Actual SEP	Change No.	% No.	End-Year Goal % No.	Actual Selections No.	% of OPP No.	Performance Index
								Performance Index
SCI & ENG	GS-5-8	12	10	.2	-17	8	3.1	2 ^{***}
	9-12	39	42	3	8	42	3.1	6 ^{***}
	13-15	8	9	1	13	16	3.1	1 ^{***}
OTH PROF	GS-5-8	41	43	2	5	3	3.1	5 5.2
	9-12	123	145	22	18	27	3.1	31 3.7
	13-15	1	1	0	0	3	3.1	0 0
MGR & ADM	GS-5-8	264	260	-4	-2	18	4.4	16 2.9
	9-12	706	789	83	12	100	4.4	112 4.6
	13-15	28	27	-1	-4	18	4.4	7 2.3
TECH	GS 1-4	551	562	11	2	20	4.4	22 5.1
	5-8	1285	1428	143	11	74	4.4	174 6.2
	9-12	191	209	18	9	59	4.4	33 2.8

^{***}Less Than 0.05%

*Relevant Labor Force Report also prepared

Sample Report

force profile of 2 persons or 5 percent. The end-year selection goal is 3 or 3.1 percent (actual selections were 5 or 5.2% of all opportunities). Thus, the performance index was calculated as 167.7 percent (i.e. 5.2 divided by 3.1). (This calculation adjusts the accountability measurement to the actual number of opportunities that occurred rather than the number estimated in the beginning. In this way the organization is not penalized for lack of EEO compliance for general work force changes such as those due to a mid-year employment freeze.)

The data on actual selections and opportunities are obtained from historical flow statistics from the Personnel Automated Data System (PADS). For example, data is shown in Table 5 for the Administrative GS 9-12's in the total Navy civilian work force were Black males. During FY 79, 43 Black males were hired, 44 promoted from the next lower category (Admin GS 5-8), and 62 transferred in from other occupations within the population. A total of 1498 or 4.2% of the 3,552 opportunities for selection to Administrative GS 9-12 went to Black males. During the same period, 90 Black males left the Administrative GS 9-12 Category yielding 939 or 4.1% on September 30, 1979.

The multi-year goals report of DONEAS displays work force distribution goals by using both CLF and RLF as standards. The same methodology is used for all RNS groups including White males. The CLF goals are developed simply by multiplying the manpower requirements by the CLF standards. In addition to the manpower requirements and RLF and CLF standards, other inputs are personnel movement data for attrition calculations and the current work force population. Outputs of this multi-year part of DONEAS include, labor market supply ratios, manpower requirements data and the EEO goals report.

**Department of the Navy
EEO Personnel Movements - FY 79**

ADMIN GS 9-12

	ACT SEP 78	Hires NO. %	Promotions NO. %	Other gain NO. %	Total OPP NO. %	Losses No. %	Actual SEP 79
Black Male	880	43 4.0	44 4.1	62 4.4	149 4.2	90 3.1	939
Hisp Male	301	15 1.4	16 1.5	27 1.9	58 1.6	44 1.6	315
Other * Male	283	19 1.7	5 0.5	18 1.3	41 1.2	48 .7	276
White Male	15,331	769 72.0	455 41.9	983 70.3	2,207 62.1	2,049 72.4	15,489
Black Female	706	26 2.4	71 6.6	41 2.9	138 3.9	55 2.0	789
Hisp Female	63	2 0.2	10 0.9	5 0.4	17 0.5	5 0.2	75
Other * Female	69	3 0.3	8 0.7	7 0.5	18 0.5	7 0.2	80
White Female	4652	192 18.0	476 43.8	256 18.3	924 26.0	532 18.8	5,044
TOTAL	22,285	1,068	1,085	1,399	3,552	2,830	23,007

*Other Includes Asian and Native American

Table 5

Sample Report

As shown in Table 6, the manpower requirements are developed without respect to RNS breakdowns and portray the number of man years needed for each occupation-grade group category. These data can be developed several ways. One way is to assume the future will be the same as the present. Another is to proportionalize the end-strength in the Five Year Defense Plan (FYDP) using the current population. Finally, the manpower requirements data can be changed using an interactive computer arrangement.

The DONEAS EEO goals report is shown in Table 7. For example, the installation had 10 Hispanic male Scientists and Engineers, GS 9-12, in their work force population in September 1980. The RLF goal for September 1981 was 10, or no difference from the current population. The RLF goal for September 1985 was 10 (or representation was 100% of the RLF goal). For the same job category, the CLF goal was 14 or a desired change of 4 additional Hispanic males.

In order to allow comparisons of the EEO goals for each of the job categories across RNS groups, a summary multi-year goals report as shown in Table 8 can be obtained. This report would be used if one wanted to interactively change the goal for one RNS group in relationship to the other RNS groups. Such changes have to be made in pairs so that the upward change of the goal of one RNS group is balanced by the downward change of the goal of another RNS group. In this way the total number of projected jobs remains the same.

Particular attention is paid to the rounding rules. If normal rounding procedures were used for the job categories with a manpower requirement between 20-50, those RNS groups with small labor market supply ratios would never be included. For example, if the total number of jobs were 30 and the labor market supply ratio was one percent, by normal rounding the goal would be zero since 30 multiplied by 0.01 equals

Sample Navy Installations

Projected Requirements for 1984

Major Occupation	GS 1-4	GS 5-8	GS 9-12	GS 13-15	GS 16-18	TOTAL
SCI & ENG	0	51	535	97	0	683
Other Prof	0	1	14	2	0	17
Managers & Admin	0	27	207	34	0	266
Sub Prof & Tech	86	214	491	5	0	796
Clerical	203	153	0	0	0	356
Service	0	0	0	0	0	0
APPRENT	SEMI-SKI	JOURNNYMN	LEADERS	SUPERVS		
Craftsmn-Operations	886	1,032	3,750	561	754	6,983
Laborers	0	48	0	0	0	48

Table 6

Navy EEO Goals Report
Sample Navy Installation

Hispanic Male

Job Category	Actual SEP 80	RLF Goal SEP 81	Diff SEP 81 SEP 80	Relevant Labor Force		Civilian Labor Force Goal SEP 85	Desired Change BY SEP 85	Civilian Labor Force Goal SEP 85	Desired Change BY SEP 85
				SEP 81	Goal SEP 85				
SCI & E	GS 5-8	0	0	0	2	2	***	2	2
	9-12	10	10	0	10	***	***	14	4
	13-15	1	1	0	2	1	1	3	2
MGR & ADM	GS 5-8	3	2	*	2	***	***	2	***
	9-12	7	7	*	6	***	***	12	5
	13-15	0	0	0	1	1	1	2	2
Tech	GS 1-4	1	1	0	2	1	1	5	4
	5-8	9	10	1	13	4	4	13	4
	9-12	15	17	2	27	12	12	29	14
Clerical	GS 1-4	3	3	0	3	***	***	12	9
	5-8	1	1	0	2	1	1	9	8
Craft	Apprent	45	41	*	41	***	***	53	8
	Semi-Sk	64	60	*	58	***	***	61	***
	Journeyman	184	196	12	245	61	61	225	41
	Leaders	23	25	2	34	11	11	34	11
	Supervrs	35	37	2	47	12	12	45	10
TOTAL		401	411		495			521	

***Representation 100% or greater

Table 7

RELEVANT LABOR FORCE EEO GOALS FOR 1984
SAMPLE NAVY INSTALLATION

		MALE				FEMALE			TOTAL
		WHITE	BLACK	HISPANIC	OTHER*	WHITE	BLACK	HISPANIC	
SCI & ENG	GS 5-8	37	1	1	5	4	1	1	51
	9-12	419	11	10	47	27	10	6	535
	13-15	79	3	1	8	3	1	1	97
OTHER PROF	GS 5-8	1	0	0	0	0	0	0	1
	9-12	9	0	0	1	4	0	0	14
	13-15	2	0	0	0	0	0	0	2
MGR & ADM	GS 5-8	8	1	0	1	15	1	1	27
	9-12	146	9	6	6	33	3	1	207
	13-15	27	1	1	1	2	1	1	34
TECH	GS 1-4	53	3	2	3	18	4	1	86
	5-8	120	6	5	10	58	8	2	214
	9-12	345	24	26	46	23	9	9	491
CLERICAL	5-8	5	0	0	0	0	0	0	5
	GS 1-4	7	4	2	1	164	14	6	203
	9-12	8	3	1	2	121	8	3	153
CRAFT	Apprentices	566	40	43	40	149	29	6	886
	Semi-skilled	652	184	55	49	67	10	8	1,032
	Journeymen	2,777	318	239	225	138	30	10	3,750
	Leaders	454	46	35	20	5	0	1	561
	Supervisors	613	62	46	24	8	0	1	754
		35	5	2	2	1	2	1	48

*Includes Asian and Native American.

Table 8

0.3 which is less than 0.5 or one half a percent. To overcome this problem and ensure an affirmative action approach, the number is rounded up rather than rounded off when the manpower requirement is between 20-50 jobs and the labor market supply ratio is two percent or less. In the example, the 0.3 would be rounded up to equal 1.0. Normal round off procedures are used for job categories with 50 or more jobs. When there are less than 20 jobs, the goals are set to equal the current distribution adjusted for work load changes. As described in (4), the total of the goals is checked and adjusted to ensure that it equals the total number required in the job category. (The above rounding rules will not work for the selection goals, since in almost all cases the numbers would be rounded up for minorities and women. This would frequently result in the total number of goals for the protected RNS groups being higher than the total number of opportunities).

CLF standards are used in two instances in the methodology to develop the RLF goals. In instance where the Actual representation is greater than RLF but less than or equal to CLF (RLF ACT CLF); the goal is set to the Actual if the attrition will allow it. In the case where Actual is greater than CLF which is greater than or equal to RLF, (RLF CLF ACT) the goal is set (if possible considering attrition) to CLF.

The second instance where the CLF standards are used to adjust the RLF standards are for entry level non-professional jobs. These adjustments are by race and not by race and sex. Also, to encourage affirmative action for women in the blue collar apprentice and semi-skilled jobs, the RLF standards are adjusted so that the larger of the RLF supply ratio or 25% is used to make the goal calculation.

The thrust of DONEAS is to provide for realism in reporting while giving full recognition to affirmative action concerns. In addition to DONEAS, more detailed historical information may be required to support EEO/AA in areas such as recruiting, training, job design, and hiring of the handicapped. Among the most important areas which will be included in extensions to DONEAS are information on applicant flows and on EEO complaint processing. Also, on the horizon are information support tools in the area of measuring efficiency of EEO across organizations which could become important enhancements to assisting EEO policy analysis and operational planning.

A critical need which has been recognized in a number of Supreme Court cases (as well as the UGES) is applicant flow data. Without such data, planning for external and internal recruitment is difficult and evaluation of recruitment and selection processes is next to impossible.⁸ The Navy has begun to develop an "applicant file" system. Table 8 is an example of an applicant flow analysis report. It shows by RNS group for a given set of selections, data on total applicants, those ineligible on experience, those qualified or highly qualified, those considered (certified to selecting official) and those selected. If desired, statistical methods such as Chi-square analysis or ratio of proportions tests could be used to determine if bias is occurring in the selection process.

Another area of importance to EEO/AA policy planning is data on EEO complaints. If the same problem appears in several areas, it may deserve review as a candidate for further action. To help provide such insights, the Navy's EEO complaint processing information system is being examined.

⁸See, for instance, McDonnell v. Green, 411 U.S. 792, 8021 (1973) which essentially requires the plaintiff to show he was as qualified as the person selected.

PROPOSED APPLICANT FLOW ANALYSIS REPORT

Sample Navy Installation

Blue-Collar Supervisor Selections FY80

Category	Applicants	Ineligible on Experience	Highly Qualified	Certified to Selecting Officers	Selected
Black male	877	488	163	226	27
Hispanic male	381	203	53	125	20
Other* male	562	285	25	182	26
White male	2,804	1,444	401	959	163
Black female	28	23	4	1	1
Hispanic female	32	22	4	6	4
Other* female	2	1	1	1	1
White female	47	25	10	12	2
Total	<u>4,733</u>	<u>2,491</u>	<u>720</u>	<u>1,522</u>	<u>239</u>
					<u>854</u>

*Includes Asian and Native American

There are a number of modeling approaches to provide more comprehensive EEO planning and evaluation tools. For example, integrated models are being developed to assist in making trade-off decisions between internal and external applicants -- including the possibility of changing the internal flows (See (9)). Other efforts are underway to provide methodologies for measuring efficiency and trade-offs in attainment of EEO goals across multiple organizations (See (10)). These and other approaches are designed to bring planning assistance to the systemic issues of EEO/AA.

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